NASA Glenn Success Stories

# NASA Bearing Material Means Bigger Yields for ADMA



# **TECHNOLOGY**

ADMA Products, Inc. licensed NASA's PS300 composite, a self-lubricating bearing material containing chromium oxide.

# **COMMERCIAL APPLICATION**

ADMA specializes in powder metallurgy, and had used the predecessor material, NASA's PS200, for eight years. When the newer PS300 composite became available, ADMA was interested in using it to make machine parts such as journal bearings more robust. NASA granted ADMA's license application after the Great Lakes Industrial Technology Center (GLITeC) helped the company create its commercialization plan.



NASA technology helped ADMA president, Vladimir Moxsom, improve his company's bottom line.

# SOCIAL / ECONOMIC BENEFIT

Within two months of ADMA receiving the license from NASA, ADMA began to ship new product made of the PS300 alloy. In addition, ADMA also worked closely with the NASA developers to optimize the manufacturing processes and maximize product yield. ADMA was able to increase yields of the key starting material to nine times ADMA's previous level and twice what NASA's yield had been. These improvements reduced the price of the PS300 composite, reduced delivery times, and made the company more profitable.

# NASA APPLICATIONS

NASA developed the PS300 composite as a coating to increase the life of foil bearings in oil-free systems. Because PS300 is stable at high temperatures under high loads, it is better suited than other materials for many aerospace applications.

#### **Point of Contact:**



glitec@battelle.org Phone: 216/898-6400 Fax: 216/898-6550 20445 Emerald Parkway Drive, S.W.

Cleveland, OH 44135

Commercial Technology Office

cto@grc.nasa.gov Phone: 216/433-3484 Fax: 216/433-5531 21000 Brookpark Road Cleveland, OH 44135